# UNITED STATES PATENT AND TRADEMARK OFFICE

| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
|---|---|---|---|---|
| 10/720,658 | 11/24/2003 | John Terry | 042933/303048 | 4642 |

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ALSTON & BIRD LLP
BANK OF AMERICA PLAZA
101 SOUTH TRYON STREET, SUITE 4000
CHARLOTTE, NC 28280-4000

| EXAMINER |
|---|
| DEAN, RAYMOND S |

| ART UNIT | PAPER NUMBER |
|---|---|
| 2618 | |

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|---|---|
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**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

| | Application No. | Applicant(s) |
|---|---|---|
| **Advisory Action**<br>***Before the Filing of an Appeal Brief*** | *10/720,658* | TERRY ET AL. |
| | **Examiner** | **Art Unit** | |
| | RAYMOND S. DEAN | 2618 | |

***-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --***

THE REPLY FILED <u>13 May 2008</u> FAILS TO PLACE THIS APPLICATION IN CONDITION FOR ALLOWANCE.

1. ☒ The reply was filed after a final rejection, but prior to or on the same day as filing a Notice of Appeal. To avoid abandonment of this application, applicant must timely file one of the following replies: (1) an amendment, affidavit, or other evidence, which places the application in condition for allowance; (2) a Notice of Appeal (with appeal fee) in compliance with 37 CFR 41.31; or (3) a Request for Continued Examination (RCE) in compliance with 37 CFR 1.114. The reply must be filed within one of the following time periods:

   a) ☒ The period for reply expires <u>3</u> months from the mailing date of the final rejection.

   b) ☐ The period for reply expires on: (1) the mailing date of this Advisory Action, or (2) the date set forth in the final rejection, whichever is later. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of the final rejection.

      Examiner Note: If box 1 is checked, check either box (a) or (b). ONLY CHECK BOX (b) WHEN THE FIRST REPLY WAS FILED WITHIN TWO MONTHS OF THE FINAL REJECTION. See MPEP 706.07(f).

Extensions of time may be obtained under 37 CFR 1.136(a). The date on which the petition under 37 CFR 1.136(a) and the appropriate extension fee have been filed is the date for purposes of determining the period of extension and the corresponding amount of the fee. The appropriate extension fee under 37 CFR 1.17(a) is calculated from: (1) the expiration date of the shortened statutory period for reply originally set in the final Office action; or (2) as set forth in (b) above, if checked. Any reply received by the Office later than three months after the mailing date of the final rejection, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

<u>NOTICE OF APPEAL</u>

2. ☐ The Notice of Appeal was filed on _____. A brief in compliance with 37 CFR 41.37 must be filed within two months of the date of filing the Notice of Appeal (37 CFR 41.37(a)), or any extension thereof (37 CFR 41.37(e)), to avoid dismissal of the appeal. Since a Notice of Appeal has been filed, any reply must be filed within the time period set forth in 37 CFR 41.37(a).

<u>AMENDMENTS</u>

3. ☐ The proposed amendment(s) filed after a final rejection, but prior to the date of filing a brief, will <u>not</u> be entered because

   (a)☐ They raise new issues that would require further consideration and/or search (see NOTE below);

   (b)☐ They raise the issue of new matter (see NOTE below);

   (c)☐ They are not deemed to place the application in better form for appeal by materially reducing or simplifying the issues for appeal; and/or

   (d)☐ They present additional claims without canceling a corresponding number of finally rejected claims.

      NOTE: _____. (See 37 CFR 1.116 and 41.33(a)).

4. ☐ The amendments are not in compliance with 37 CFR 1.121. See attached Notice of Non-Compliant Amendment (PTOL-324).

5. ☐ Applicant's reply has overcome the following rejection(s): _____.

6. ☐ Newly proposed or amended claim(s) _____ would be allowable if submitted in a separate, timely filed amendment canceling the non-allowable claim(s).

7. ☐ For purposes of appeal, the proposed amendment(s): a) ☐ will not be entered, or b) ☐ will be entered and an explanation of how the new or amended claims would be rejected is provided below or appended.

   The status of the claim(s) is (or will be) as follows:

   Claim(s) allowed: _____.

   Claim(s) objected to: _____.

   Claim(s) rejected: _____.

   Claim(s) withdrawn from consideration: _____.

<u>AFFIDAVIT OR OTHER EVIDENCE</u>

8. ☐ The affidavit or other evidence filed after a final action, but before or on the date of filing a Notice of Appeal will <u>not</u> be entered because applicant failed to provide a showing of good and sufficient reasons why the affidavit or other evidence is necessary and was not earlier presented. See 37 CFR 1.116(e).

9. ☐ The affidavit or other evidence filed after the date of filing a Notice of Appeal, but prior to the date of filing a brief, will <u>not</u> be entered because the affidavit or other evidence failed to overcome <u>all</u> rejections under appeal and/or appellant fails to provide a showing a good and sufficient reasons why it is necessary and was not earlier presented. See 37 CFR 41.33(d)(1).

10. ☐ The affidavit or other evidence is entered. An explanation of the status of the claims after entry is below or attached.

<u>REQUEST FOR RECONSIDERATION/OTHER</u>

11. ☒ The request for reconsideration has been considered but does NOT place the application in condition for allowance because: <u>See Continuation Sheet.</u>

12. ☐ Note the attached Information *Disclosure Statement*(s). (PTO/SB/08) Paper No(s). _____

13. ☐ Other: _____.

/Edward Urban/
Supervisory Patent Examiner, Art Unit 2618

/Raymond S Dean/
Primary Examiner, Art Unit 2618, May 23, 2008
571-272-7877

Continuation of 11. does NOT place the application in condition for allowance because:

Examiner respectfully disagrees with Applicants' assertion on Page 4, 3rd Paragraph "Nowhere in the cited portion or any other portion of Kadous is there any mention, teaching or suggestion ....Kadous is simply altogether silent and does not conteomplate ...". Kadous teaches in Col. 4 lines 4 - 10, which was also cited by Applicants, that each data stream is modulated based on a particular modulation scheme selected for that data stream. Kadous further teaches in Col. 15 lines 59 - 63 that a separate modulation scheme is used for each data stream. The fact that there is a separate or particular for each data stream renders a myriad of scenarios such as Applicants' asserted scenario of the same modulation scheme being used for each data stream or a different modulation scheme being used for each data stream as claimed.

Examiner respectfully disagrees with Applicants' assertion on Page 2, 4th Paragraph "Kadous is incapable of teaching or suggesting that a first mapper ...". If OFDM, as Applicants have correctly asserted, is not employed then the modulation symbols are sent to the antennas (124) (See Kadous Col. 17 lines 7 - 10). The modulation symbols are sent from the mapping elements (516) to the antennas via the TX MIMO processor. While the symbols are sent to the antennas via the TX MIMO processor said symbols are still sent from the mappers. Applicants claim language does not distringuish from this indirect means of sending the symbols to the antenna thus Kadous still reads on the limitation in question.

Examiner respectfully disagrees with Applicants assertion on Page 5, 5th Paragraph "As pointed out in the Amendment filed December 14, 2007, nowhere in the cited portion or any other portion ....mapped values differ and are formed of mutually exclusive elements ...". Kadous, as set forth above, teaches a separate modulation scheme for each data stream such as BPSK for data stream 1 and QPSK for data stream 2. The BPSK constellation is different from the QPSK constellation in that the symbol values are different. The I component value and the Q component value make up the symbol value. The I and Q component values of all of the symbols in a QPSK constellation are different from I and Q component values of all of the symbols in a BPSK constellation thus Kadous reads on the limitation in question.

Examiner respectfully disagrees with Applicants assertion on Page 7, 1st Paragraph "Kadous is simply altogether silent regarding ... in which the mapping schemes comprise vector magnitudes that differ". The I and Q component values of the symbols in a QPSK constellation are different from the I and Q component values of the symbols in a BPSK constellation. The the square root of the sum of the squares of the I and Q component values renders the length or magnitude of the vector thus since the the I and Q component values in the QPSK constellation are different from the I and Q component values of the BPSK constellation the vector magnitudes generated from said component values will be different .